05/10/2005 16:49 7033855080 KEATING & BENNETT PAGE 03/18

Serial No. 10/801,152 May 10, 2005 Reply to the Office Action dated December 10, 2004 Page 2 of 15

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): A positive temperature coefficient thermistor comprising:

a laminate including a plurality of thermistor layers stacked in a lamination direction and having a positive resistance temperature coefficient;

first and second external electrodes disposed at different positions on an outer surface of the laminate;

a plurality of first internal electrodes and a plurality of second internal electrodes arranged so as to extend along predetermined interfaces between the plurality of thermistor layers inside of the laminate and so as to be electrically connected to the first external electrode and the second external electrode, respectively, the first internal electrodes and the second internal electrodes being arranged alternately in the lamination direction so that a portion of the first internal electrodes and a portion of the second internal electrodes overlap each other while sandwiching the thermistor layers therebetween; and

at least one non-heating portion, which is not heated when a voltage is applied between the first and second internal electrodes, being located at an approximate center along a direction that is substantially perpendicular to the lamination direction of the portion of the laminate where the first and the second internal electrodes are arranged and at least in an approximate center in the lamination direction thereof; wherein

the at least one non-heating portion includes a cavity provided in at least one of the thermistor layers;

05/10/2005 16:49 7033855080 KEATING & BENNETT PAGE 04/18

Serial No. 10/801,152 May 10, 2005 Reply to the Office Action dated December 10, 2004 Page 3 of 15

the cavity is disposed at least in the approximate center of the laminate in the lamination direction; and

the cavity does not extend entirely through the laminate.

Claims 2-9 (canceled).

Claim 10 (currently amended): A positive temperature coefficient thermistor comprising:

a laminate including a plurality of thermistor layers stacked in a lamination direction and having a positive resistance temperature coefficient;

first and second external electrodes disposed at different positions on an outer surface of the laminate;

a plurality of first internal electrodes and a plurality of second internal electrodes arranged to extend along predetermined interfaces between the plurality of thermistor layers inside of the laminate and so as to be electrically connected to the first external electrode and the second external electrode, respectively, the first internal electrodes and the second internal electrodes being arranged alternately in the lamination direction so that a portion of the first internal electrodes and a portion of the second internal electrodes overlap each other in the lamination direction while sandwiching the thermistor layers; and

at least one cavity being provided in at least one of the thermistor layers in an approximate center along a direction that is substantially perpendicular to the lamination direction of the portion of the laminate where the first and the second internal electrodes overlap each other, the at least one cavity being positioned at least at an approximate center in the longitudinal and width directions of the portion of the laminate where the first and second internal electrodes overlap each other, the at least one cavity being positioned at least at an approximate center in the lamination direction of the

Serial No. 10/801,152 May 10, 2005 Reply to the Office Action dated December 10, 2004 Page 4 of 15

portion of the laminate where the first and the second internal electrodes are arranged; wherein

the at least one cavity does not extend entirely through the laminate.

Claim 11 (original): A positive temperature coefficient thermistor according to Claim 10, wherein the at least one cavity is formed so as pass through the thermistor layer in the thickness direction.

Claim 12 (original): A positive temperature coefficient thermistor according to Claim 11, wherein the internal electrode positioned on one end side of the at least one cavity is provided with an opening connected to the at least one cavity.

Claim 13 (original): A positive temperature coefficient thermistor according to Claim 10, wherein the at least one cavity has a shape that is one of a vertical column, substantially triangular, substantially rectangular, substantially polygonal, substantially elliptic, and star shaped.

Claim 14 (original): A positive temperature coefficient thermistor according to Claim 10, further comprising a plurality of cavities formed in the laminated and arranged and aligned at the approximate center along a direction that is substantially perpendicular to the lamination direction of the portion of the laminate where the first and the second internal electrodes overlap each other, and the plurality of cavities being positioned at least at the approximate center in the lamination direction of the portion of the laminate where the first and the second internal electrodes are arranged.

Claim 15 (original): A positive temperature coefficient thermistor according to Claim 14, wherein each of the plurality of cavities has a shape that is one of a vertical

05/10/2005 16:49 7033855080 KEATING & BENNETT PAGE 06/18

Serial No. 10/801,152 May 10, 2005 Reply to the Office Action dated December 10, 2004 Page 5 of 15

column, substantially triangular, substantially rectangular, substantially polygonal, substantially elliptic, and star shaped

Claim 16 (currently amended): A positive temperature coefficient thermistor comprising:

a laminate including a plurality of thermistor layers stacked in a lamination direction and having a positive resistance temperature coefficient;

first and second external electrodes disposed at different positions on an outer surface of the laminate; and

a plurality of first internal electrodes and a plurality of second internal electrodes arranged so as to extend along predetermined interfaces between the plurality of thermistor layers inside the laminate and so as to be electrically connected to the first external electrode and the second external electrode, respectively, the first internal electrodes and the second internal electrodes being arranged alternately in the lamination direction so that a portion of the first internal electrodes and a portion of the second internal electrodes overlap each other while sandwiching the thermistor layers therebetween, at least one of the first and second internal electrodes which is positioned at least at an approximate center in the lamination direction of the portion of the laminate where the first and second internal electrodes are arranged including a portion thereof that is not provided with the electrode, the portion not provided with the electrode being positioned at least an approximate center along a direction that is substantially perpendicular to the lamination direction of the portion of the laminate where the first and second internal electrodes overlap each other; wherein

the portion not provided with the electrode includes an opening provided in the internal electrode;

the opening is positioned at least at an approximate center in the longitudinal and width directions of the portion of the laminate where the first and second internal electrodes overlap each other; and

Serial No. 10/801,152 May 10, 2005 Reply to the Office Action dated December 10, 2004 Page 6 of 15

the size of the opening is at least about 0.1 mm.

Claims 17 and 18 (canceled).

Claim 19 (original): A positive temperature coefficient thermistor according to Clam 16, wherein the portion not provided with the electrode is provided in all of the first electrodes or all of the second internal electrodes.

Claim 20 (original): A positive temperature coefficient thermistor according to Claim 16, wherein the portion not provided with the electrode is provided in all of the first electrodes and the second internal electrodes.

Claim 21 (new): A positive temperature coefficient thermistor comprising:
a laminate including a plurality of thermistor layers stacked in a lamination direction and having a positive resistance temperature coefficient;

first and second external electrodes disposed at different positions on an outer surface of the laminate; and

a plurality of first internal electrodes and a plurality of second internal electrodes arranged so as to extend along predetermined interfaces between the plurality of thermistor layers inside the laminate and so as to be electrically connected to the first external electrode and the second external electrode, respectively, the first internal electrodes and the second internal electrodes being arranged alternately in the lamination direction so that a portion of the first internal electrodes and a portion of the second internal electrodes overlap each other while sandwiching the thermistor layers therebetween, at least one of the first and second internal electrodes which is positioned at least at an approximate center in the lamination direction of the portion of the laminate where the first and second internal electrodes are arranged including a portion thereof that is not provided with the electrode, the portion not provided with the

Serial No. 10/801,152 May 10, 2005 Reply to the Office Action dated December 10, 2004 Page 7 of 15

electrode being positioned at least an approximate center along a direction that is substantially perpendicular to the lamination direction of the portion of the laminate where the first and second internal electrodes overlap each other; wherein

the portion not provided with the electrode includes a cut portion provided in the internal electrode; and

the cut portion is positioned at least at an approximate center in the longitudinal and width directions of the portion of the laminate where the first and second internal electrodes overlap each other.

Claim 22 (new): A positive temperature coefficient thermistor according to Clam 21, wherein the portion not provided with the electrode is provided in all of the first electrodes or all of the second internal electrodes.

Claim 23 (new): A positive temperature coefficient thermistor according to Claim 21, wherein the portion not provided with the electrode is provided in all of the first electrodes and the second internal electrodes.